

**Abstract Of The Disclosure**

A position control device for causing a position of a control system, including a servomotor and a moving body driven by the servomotor, to track a command value. The position control device includes a sliding mode controller for receiving command position  $r$  and state variable  $x$  of the control system and for providing a control input  $u$  to the servomotor. State variable  $x$  is expressed as follows:

$$x = \begin{bmatrix} \theta \\ \dot{\theta} \end{bmatrix},$$

where  $\theta$  is feedback position and  $\dot{\theta}$  is feedback velocity. The position control device also includes a disturbance variable compensator for compensating control input  $u$  based on feedback velocity  $\dot{\theta}$ .